DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING and COMPLIANCE DIVISION

MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES)

Statement of Basis

Permittee:	City of Glendive
Permit No.:	MT0000876
Receiving Water:	Yellowstone River
Facility Information:	
Name	City of Glendive Water Treatment Plant
Location	420 West Bell Street
Facility Contact:	Jack Rice, Assistant Public Works Director 300 South Merrill Ave. Glendive, MT 59330 406-377-3318
Fee Information:	
Number of Outfalls	3 - (for fee determination)
Outfall – Type	001 –Pump room leakage to floor drain in old intake building 002 – Filter to waste line 003 - Pump room leakage to floor drain in new intake building

I. Permit Status

The Environmental Protection Agency (EPA) first issued a National Pollutant Discharge Elimination System permit for the City of Glendive Water Treatment Plant (Glendive WTP) on December 13, 1973. Subsequent MPDES permits have been issued by the Department. The latest MPDES permit for the Glendive WTP was issued September 1, 1998 and expired March 31, 2003. The facility submitted a renewal application on December 9, 2002. On October 11, 2007 the Department requested that the City update the application to reflect changes at the facility. On October 22, 2007 the Department received the updated application.

II. Facility Information

A. Facility Description

The Glendive WTP is a conventional potable water treatment plant utilizing settling, coagulation, flocculation and filtration processes to treat raw surface water from the Yellowstone River to finished drinking water. A new intake structure and building was completed in April 2000 (Outfall 003). Polyaluminum hydroxychloride (PAC), a flocculant, is added to raw river water at the new intake building. Water is pumped from the river to pre-sedimentation basins when the turbidity in the river is high (spring and summer); when the turbidity is low (winter) water is pumped directly to the solids contact unit (see Figure 1).

Polymers, alum and lime (for softening) are added at the solids contact unit. From the solids contact unit, water flows to the re-carbonation basin where liquid carbon dioxide is added to adjust pH before water flows to the filter units. The three filters have the capacity to treat 7.5 million gallons per day (mgd) of finished water and are monitored by continuous turbidity meters. Filter backwash solids are discharged to the sludge handling basin and stored before the solids are pumped to the sludge lagoon. Dried solids from the sludge lagoon are used at the city landfill for cover. A small volume of wastewater from the lagoon evaporates or, if necessary, can be discharged to the sanitary sewer system and treated in the City of Glendive wastewater treatment facility. There is no discharge from the sludge storage lagoon to the Yellowstone River.

Two outfalls were permitted in the previous permit (001 and 002). The City requested that an additional outfall (003) for pump room leakage from the floor drain to the river in the new intake building be added in this permit.

Outfall 001 is the floor drain from the pump room to the river in the old raw water intake building. The floor drain and intake structure are no longer used. The only potential pollutants at this outfall include oil and grease from the two raw water intake pumps. A November 8, 2007 inspection of the facility notes that the valve to the floor drain is closed and there is no potential for pollutants to enter the river through this outfall.

However, the permittee requested that Outfall 001 remain in this permit in case the floor drain and old intake structure are used in the future.

Outfall 002 authorizes the discharge of wastewater from the water treatment filters to the river when the total suspended solids (TSS) concentration in the filtered water exceeds 0.5 mg/L TSS. If the filtered water exceeds 0.5 mg/L TSS, filtered water is automatically discharged to Outfall 002. The facility reported a discharge from Outfall 002 in January 2007. The discharge occurred during a filter backwash cycle when treated water normally flows to the clear well. A computer controlled pneumatically-actuated valve malfunctioned and drained between 2,500 and 5,000 gallons of treated water to the Yellowstone River. The City maintains the MPDES permit to cover emergency situations like the one that occurred in January 2007.

Outfall 003 is a new outfall from the floor drain to the river in the new raw water intake building. Oil and grease from the four intake pumps is a potential pollutant at this outfall if maintenance on the pump is performed and, during maintenance activities, oil and grease from the pump enters the floor drain. PAC is added to the raw water in the new intake pump room. The November 8, 2007 inspection report by the Department requires the facility to store drums of PAC in another building and to provide secondary containment for the drum used to pump PAC to raw river water in order to eliminate the potential of any PAC to enter the floor drain.

B. Effluent Characteristics

Table 1 summarizes monthly self-monitoring effluent data for Outfall 002 for the period of record (POR) January 2002 through July 2007 and only includes the January 2007 discharge event. No discharges have occurred from any other outfall since the sludge lagoon was constructed in August 1991 to store backwash solids and sludge.

Table 1: Effluent Characteristics [(1)] for the Period January 2002 through July 2007.

Parameter	Location	Units	Previous Permit Limit	Minimum Value	Maximum Value	Average Value	Number of Samples
Flow, Daily Average	Effluent	mgd	[(1)]	0.005	0.005	0.005	1
TSS	Effluent	mg/L	30/45 [(2)]	0.13	0.13	0.13	1
	Effluent	lbs/day	[(1)]	0.005	0.005	0.005	1
Dissolved Aluminum	Effluent	mg/L	1.0/1.5 [(2)]	28.7	28.7	28.7	1
	Effluent	lbs/day	[(1)]	1.2	1.2	1.2	1
pH	Effluent	s.u.	6.0-9.0	7.32	7.32	7.32	1
Chlorine, Total Residual	Effluent	mg/L	0.5 [(3)]	2.34	2.34	2.34	1

Footnotes:
(1) No limit in previous permit; monitoring requirement only
(2) 30-Day Average/Instantaneous Maximum
(3) Instantaneous maximum

C. Compliance History

The discharge from Outfall 002 in January 2007 exceeded permit limits for aluminum and total residual chlorine (TRC). A violation letter dated July 9, 2007 for exceeding the aluminum and TRC effluent limits is in the administrative file.

III. Rationale for Proposed Technology-based Effluent Limits

A. Scope and Authority

The Montana Board of Environmental Review (BER) has adopted performance standards for point source discharges to state waters under Title 17, Chapter 30, Subchapter 12. The Board has adopted by reference 40 CFR Subpart N which is a series of federal agency rules that adopt technology based effluent limits (TBEL) for existing sources and performance standards for new sources [Administrative Rules of Montana (ARM) 17.30.1207(1)]. National Effluent Limit Guidelines (ELG) have not been promulgated under Subchapter N for filter backwash water or floor drain discharges at water treatment plants.

In addition to Subchapter 12, the BER has adopted general treatment requirements that establish the degree of wastewater treatment required to maintain and restore the quality of state surface waters. This rule states that in addition to federal ELGs, the degree of wastewater treatment is based on the surface water quality standards; the state's nondegradation policy; the quality and flow of the receiving water; the quantity and quality of sewage, industrial wastes and other wastes to be treated; and the presence or absence of other sources of pollution on the watershed [ARM 17.30.635(1)]. Also, ARM

17.30 635(3) states industrial waste must receive, as a minimum, treatment equivalent to the best practicable control technology currently available (BPCTCA) as defined in 40 CFR Chapter 1, Subchapter N (July 1, 1991).

In the absence of federal effluent limitation guidelines, the Department will maintain the TBELs for Outfall 002 from the previous permit:

Monthly Average TSS: 30 mg/L
Daily Maximum TSS: 45 mg/L

No TBELs are applicable to Outfall 001 and Outfall 003.

B. Technology-based Effluent Limits – Basis for Mass-Based Calculations

The design flow in the MPDES permit application for each outfall is 0 million gallons per day (mgd) because the facility does not normally discharge from the facility. In the absence of a design flow for Outfall 002, the estimated flow (0.005 mgd) that occurred during the January 2007 discharge event will be used as the design flow to calculate mass-based limits for this outfall because, according to the public works director, 5,000 gallons is the maximum volume of water that can be discharged from one filter unit. Loading limits for the technology-based parameter of concern (TSS) at Outfall 002 will apply to the effluent and will be maintained at the more stringent of the nondegradation allocation or mass-based loading limit calculated in this permit renewal. Mass-based limits will be calculated for TSS at Outfall 2. Mass-based limits for oil and grease at Outfall 001 and Outfall 003 are not necessary because oil and grease is sufficiently controlled by the 10 mg/l concentration limit and no visible oil film limit in the permit.

The following equation was utilized to calculate the TSS mass-based load allocation for Outfall 002 using the design flow of 0.005 mgd:

Design Flow (mgd) x Concentration Limit (mg/L) x 8.34 (lb·L)/(mg·gal) = Load (lb/day)

TSS:
Average monthly load (lb/day) = (0.005)(30)(8.34) = 1.3 lb/day
Daily maximum load (lb/day) = (0.005)(45)(8.34) =1.9 lb/day

Proposed TBELs for TSS at Outfall 002 are in Table 2.

Table 2. Technology-based Effluent Limits for Outfall 002

Parameter (mg/L)	Concentration		Load		Rationale
	Average Monthly [1] (mg/L)	Daily Maximum [1] (mg/L)	Average Monthly (lbs/day)	Daily Maximum (lbs/day)	
TSS	30	45	1.3	1.9	ARM 17.30 635(3)
(1) See the definitions in Part I.A of the permit for explanation of terms.					

C. Nondegradation Load Allocations

The provisions of ARM 17.30.701, *et seq*. (Nondegradation of Water Quality) apply to new or increased sources of pollution [ARM 17.30.702(18)]. Sources that are in compliance with the conditions of their permit and do not exceed the limits established in the permit, or as determined from a permit previously issued by the Department, are not considered new or increased sources (Outfall 001 and Outfall 002).

Based on 75-5-715(3) and 75-5-301(5)(c), MCA, the Department has determined the potential discharge of oil and grease from the new outfall (Outfall 003) is nonsignificant because: 1) a discharge from this outfall would only occur if the intake pumps would leak oil and grease from the pump to the drain, 2) there is low potential for harm to human health or the environment, 3) the quantity and strength of the pollutant (oil and grease) is low and controlled in the permit, and 4) low concentrations of oil and grease are generally not persistent in the environment.

Nondegradation load values were not calculated or monitored in the previous Statement of Basis (SOB) because a discharge was not anticipated, so an evaluation of actual loads and allocated loads cannot be performed in this SOB. This permit calculates a nondegradation TSS load value for Outfall 002 using the flow value from the January 2007 discharge event (0.005 mgd).

The following equation is utilized to calculate a nondegradation baseline load allocation for TSS at Outfall 002 using the flow value of 0.005 mgd:

Design Flow (mgd) x Maximum Concentration Limit (mg/L) x 8.34 (lb·L)/(mg·gal) = Load (lb/day)

TSS
Daily maximum load (lb/day) = (0.005)(45)(8.34) =1.9 lb/day

The nondegradation load value for TSS at Outfall 002 will be used in this permit to ensure nondegradation loads are not exceeded during this permit cycle. Monitoring (calculating loads) for these parameters will be required in this permit (see Section VI).

IV. Rationale for Proposed Water Quality-based Effluent Limits

A. Scope and Authority

Permits are required to include WQBELs when TBELs are not adequate to protect state water quality standards (40 CFR 122.44 and ARM 17.30.1344). ARM 17.30.637(2) states that no wastes may be discharged that can reasonably be expected to violate any state water quality standard. Montana water quality standards (ARM 17.30.601 et seq.) define both water use classifications for all state waters and numeric and narrative standards that protect those designated uses. New sources, as defined in ARM 17.30.702(18), are subject to Montana Nondegradation Policy [75-5-303, Montana Code Annotated (MCA)] and regulations (ARM 17.30.701 *et. seq*).

B. Receiving Water

Wastewater is discharged from the Glendive WTP to the Yellowstone River (one discharge has occurred since August 1991). The receiving water is classified as B-3 according to Montana Water Use Classifications, ARM 17.30.611(1)(c)(i). B-3 waters are to be maintained suitable for drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming and recreation; growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply. The B-3 classification is consistent with the previous SOB. The Yellowstone River in the vicinity of the discharge is considered high quality water pursuant to Montana's Nondegradation Policy and degradation of high quality water is not allowed unless authorized by the Department under 75-5-303(3), MCA.

The Yellowstone River is located within the lower Yellowstone watershed as identified as United States Geological Survey (USGS) Hydrological Unit Code (HUC) 10100004. The Yellowstone River in the vicinity of the discharge is on the 1996 303(d) list of impaired streams as impaired for metals, nutrients, other habitat alterations, pathogens, salinity, total dissolved solids, chlorides, suspended solids and pH. The probable sources of impairment are agriculture, irrigated crop production, municipal point sources, natural sources, range land and stream bank modification/destabilization. The Yellowstone River in the vicinity of the discharge is not on the 2006 303(d) list of impaired streams.

However, 13 miles downstream at the Lower Yellowstone Diversion Dam begins segment MT42M001_011 of the Yellowstone River which is on the 2006 303(d) list. This segment includes the Yellowstone River to the North Dakota border. Segment MT42M001_011 is impaired for alteration in stream-side or littoral vegetative covers, chromium, copper, fish-passage barrier, lead, nitrogen, pH, phosphorus, sedimentation/siltation and total dissolved solids. Probable sources of impairment include irrigated crop production, rangeland grazing, stream bank modification/destabilization, unknown and natural sources of metals, pH and total dissolved solids, and impacts from hydro-structure flow.

The USGS collects flow and other data for the Yellowstone River at gauging station number 06327500 in Glendive, which is located on the right bank of the river upstream from the water treatment plant near the Bell Street bridge. This station collected flow data for 16 years during the periods of 1897-1910 and 1931-1934 and calculated a 7Q10 flow of 1,830 cubic feet per second (cfs). More recent USGS flow data (October 1933 through 2002) are available at a downstream (from the Glendive WTP) gauging station (USGS 06329500) near the Montana Dakota Utilities power plant about three miles south of Sidney. The 7Q10 flow at this station is 1,360 cfs. The difference in flow between these two stations is accounted for by irrigation water diverted from the river at the Lower Yellowstone diversion dam at Intake, which is 16 miles downstream from Glendive. This downstream flow value is sufficient to use in this permit because the value is not influenced by the flow from the Glendive WTP since the plant has only discharged once in the last 16 years. The 7Q10 of 1,360 cfs is based on more recent flow data and will be used to calculate effluent limits in this permit.

C. Applicable Water Quality Standards

Discharges to surface waters classified B-3 are subject to the specific water quality standards of ARM 17.30.625 (March 31, 2006), Department Circular DEQ-7 (February 2006), as well as the general provision of ARM 17.30.635 through 637. In addition to these standards, dischargers are also subject to ARM 17.30 Subchapter 5 (Mixing Zones, November 2004) and Subchapter 7 (Nondegradation of Water Quality, June 30, 2004).

ARM 17.30.635(4) requires that the design condition for disposal systems must be based on the 7-day average flow of the receiving water which is expected to occur on average once in 10-years (7Q10).

D. Mixing Zone

A mixing zone is an area where the effluent mixes with the receiving water and certain water quality standards may be exceeded [ARM 17.30.502(6)]. The Department must determine the applicability of currently granted mixing zones [ARM 17.30.505(1)]. Mixing zones allowed under a permit issued prior to April 29, 1993 will remain in effect unless there is evidence that previously allowed mixing zones will impair existing or anticipated uses [ARM 17.30.505(1)(c)].

A standard mixing zone may be granted for facilities which discharge less than 1 mgd to a stream segment with a dilution ratio greater than or equal to 100:1. The dilution ratio of the Glendive WTP discharge with the Yellowstone River is 1,360 cfs/0.008 cfs or 170,000:1. Therefore, the entire 7Q10 is used to calculate chronic effluent limits [ARM 17.30.516(a)]. No dilution is allowed to calculate acute effluent limits because acute standards for aquatic life for any parameter may not be exceeded in any portion of a mixing zone [ARM 17.30.507(1)(b)].

The previous permit identifies a mixing zone for the facility that consists of a segment of the Yellowstone River extending approximately one and three quarters of a mile downstream from the discharge point to a location directly west of the Dawson County Fair Grounds at 47º 06' 22" N latitude and 104º 41' 42" W longitude. There is no evidence that this mixing zone will impair existing or anticipated uses so it will remain in the permit [ARM 17.30.505(1)(c)].

E. Basis and Calculations for WQBEL (Reasonable Potential)

Pollutants typically present at potable water treatment plants that may cause or contribute to a violation of water quality standards include conventional pollutants such as oil and grease, TSS, pH and toxics such as chlorine and aluminum**.**

Effluent limits are required for all pollutants which demonstrate a reasonable potential to exceed numeric or narrative standards. The Department uses a mass balance equation to determine reasonable potential based on *EPA Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/505/2-90-001). Input parameters are based on receiving water concentration, maximum projected effluent concentration, design flow of the wastewater treatment facility, and the applicable receiving water flow.

The Department uses a mass balance equation to determine RP (*Equation 1*).

$$C_{RP} = \frac{C_E Q_E + C_S Q_S}{Q_E + Q_S} \qquad \textit{(Equation 1)}$$

Where:

C_{RP} = receiving water concentration (RWC) after mixing, mg/L
C_E = maximum effluent concentration, mg/L
C_S = RWC upstream of discharge, mg/L
Q_S = applicable receiving water flow, cfs
Q_E = facility design flow rate, cfs

1. Conventional Pollutants

Total Suspended Solids - The facility provides a significant reduction in TSS using filtration and coagulation/flocculation chemicals. TBELs in Part III of this SOB are sufficient to reduce the suspended solids and will apply to the discharge at Outfall 002. No additional WQBEL will be required for this parameter.

2. Non-conventional Pollutants

Total Dissolved Solids – Total dissolved solids (TDS) may be present in filter back wash water and segment MT42M001_011 of the Yellowstone River is impaired for TDS. There is insufficient facility and ambient data to perform a RP analysis for TDS. TDS monitoring will be required in this permit to evaluate TDS RP in next permit.

3. Toxic Pollutants

Total Residual Chlorine (TRC) - The maximum TRC concentration in Table 1 exceeds the acute water quality standard for TRC and there is no data or mixing zone study to demonstrate the discharge structure will provide adequate mixing of the effluent with the receiving water. To ensure acute toxicity does not occur, water quality standards for chlorine must be met at the end of the discharge pipe for Outfall 002.

The TRC limit in the previous permit is 0.5 mg/L. This concentration exceeds the acute water quality standard of 0.019 mg/L and the chronic water quality standard of 0.011 mg/L. The TRC daily maximum limit in this permit is 0.019 mg/L; the TRC average monthly limit is 0.011 mg/L. Analytical methods in 40 CFR Part 136 requires chlorine samples to be analyzed immediately. On-site sampling for TRC with a chlorine meter using an approved method is required. The method must achieve a minimum detection level of 0.1 mg/L. Sampling of effluent with analytical results less than 0.1 mg/L is considered in compliance with the chlorine limit.

Dissolved Aluminum – There is insufficient facility and ambient data to perform a RP analysis. The maximum dissolved aluminum concentration in Table 1 exceeds the acute water quality standard for aluminum and there is no data or mixing zone study to demonstrate the discharge structure will provide adequate mixing of the effluent with the receiving water. To ensure acute toxicity does not occur, water quality standards for aluminum must be met at the end of the discharge pipe for Outfall 002.

Dissolved aluminum effluent limits have been included in previous permits. The previous dissolved aluminum effluent limits were 1.0 and 1.5 mg/L for the 30-day and daily maximum limits, respectively.

Dissolved aluminum is a toxic parameter (DEQ-7, February 2006) and limits are applicable to surface waters with a pH between 6.5 and 9.0 s.u. The acute standard is 0.750 mg/L and the chronic standard is 0.087 mg/L. These water quality standards will be the effluent limits for Outfall 002.

The following equation was utilized to calculate the mass-based load allocations for aluminum using the proposed design flow of 0.005 mgd and proposed effluent limits.

Design Flow (mgd) x Concentration Limit (mg/L) x 8.34 (lb·L)(mg·gal) = Load (lb/day)

<u>Dissolved Aluminum</u>
Average monthly load (lb/day) = (0.005)(0.087)(8.34) = 0.004 lb/day
Maximum daily load (lb/day) = (0.005)(0.75)(8.34) = 0.03 lb/day

V. Proposed Effluent Limits

A. Effluent Limits for Outfall 002

Table 3. Effluent Limits – Outfall 002

Parameter	Units	Average Monthly Limit [1]	Maximum Daily Limit [1]
Total Suspended Solids	mg/L	30	45
	lb/day	1.3	1.9
Dissolved Aluminum	mg/L	0.75	0.087
	lb/day	0.004	0.03
Total Residual Chlorine [2]	mg/L	0.011	0.019

Footnotes:
NA - Not applicable
1. See Definition section at end of permit for explanation of terms.
2. Sampling of effluent with analytical results less than 0.1 mg/L is considered in compliance with the chlorine limit.

Effluent pH shall remain between 6.0 and 9.0. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit [ARM 17.30 647(2)(c)].

There shall be no discharge of floating solids or visible foam in other than trace amounts [ARM 17.30 647(1)(b)].

There shall be no discharge which causes visible oil film in the receiving water (or be present in concentrations at or in excess of 10 mg/L) [ARM 17.30 637(1)(b)].

B. Effluent Limits for Outfall 001 and Outfall 003

There shall be no discharge which causes visible oil film in the receiving water (or be present in concentrations at or in excess of 10 mg/L) [ARM 17.30 637(1)(b)].

Effluent pH shall remain between 6.0 and 9.0. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit [ARM 17.30 647(2)(c)].

There shall be no discharge of floating solids or visible foam in other than trace amounts [ARM 17.30 647(1)(b)].

VI. Monitoring Requirements

A. Effluent Monitoring for Outfall 002

Monitoring of the effluent must be representative of the discharge. The effluent sample must be obtained from the discharge pipe before the wastewater enters the Yellowstone River.

Monitoring Requirements				
Parameter	**Unit**	**Monitoring Location**	**Frequency of Analyses**	**Sample Type [1]**
Flow [2]	mgd	Effluent	Continuous	Estimated
Duration	days	Effluent	Reported	None
Total Suspended Solids	mg/L	Effluent	1/Week	Grab
	lbs/day	Effluent	1/Month	Calculated
Dissolved Aluminum	mg/L	Effluent	1/Week	Grab
	lbs/day	Effluent	1/Month	Calculated
pH	s.u.	Effluent	1/Week	Instantaneous
Total Residual Chlorine	mg/L	Effluent	1/Day	Grab
Total Dissolved Solids	mg/L	Effluent	1/Week	Grab

Footnotes:
1. See Definition section at end of permit for explanation of terms.
2. Based on estimated flow or capacity of filter system.

B. Effluent Monitoring for Outfall 001 and 003

Monitoring of the effluent must be representative of the discharges. The effluent sample must be obtained at the floor drain or from the discharge pipe before the wastewater enters the Yellowstone River.

Monitoring Requirements				
Parameter	**Unit**	**Monitoring Location**	**Frequency of Analyses**	**Sample Type [1]**
Flow [2]	mgd	Effluent	Continuous	Estimated
Duration	days	Effluent	Reported	None
pH	s.u.	Effluent	1/Week	Instantaneous
Oil and grease [3]	Presence	Effluent	1/Day	Visual
Oil and grease [3]	mg/L	Effluent	1/Week	Grab

Footnotes:
1. See Definition section at end of permit for explanation of terms.
2. Based on estimated flow.
3. If a visual examination of the discharge indicates the presence of hydrocarbons, by film, odor or other sign, the permittee is required to sample for Oil and Grease using EPA Method 1664A.

C. Additional Reporting Requirements

Load calculations are required. Standard language with examples of load calculations and percent removal calculations will be included in the permit.

Analytical methods in 40 CFR Part 136 requires TRC samples to be analyzed immediately. On-site sampling for TRC with a chlorine meter using an approved method is required. The method must achieve a minimum detection level of 0.1 mg/L. Effluent samples with analytical results less than 0.1 mg/L is considered in compliance with the TRC limit.

VII. Nonsignificance Determination

The discharge from Outfall 001 and Outfall 002 at the Glendive WTP does not constitute a new or increased source of pollutants pursuant to ARM 17.30.702(18). Based on ARM 17.30.715(3) and 75-5-301(5)(c), MCA, the discharge from Outfall 003 is not a new or increased source because the Department has determined in Section III. C that Outfall 003 is nonsignificant [ARM 17.30.702(18)(d)].

VIII. Special Conditions/Compliance Schedules

There are no special conditions or compliance schedule necessary for this permit.

IX. Other Information

On September 21, 2000, a U.S. District Judge issued an order stating that until all necessary total maximum daily loads under Section 303(d) of the Clean Water Act are established for a particular water quality limited segment, the State is not to issue any new or increased permits under the MPDES program. The order was issued in the lawsuit Friends of the Wild Swan v. U.S. EPA, *et al.* (CV 97-35-M-DWM), District of Montana, Missoula Division. The DEQ finds that renewal of this permit does not conflict with the order because there are no new or increased sources associated with the discharge.

X. Information Source

ARM Title 17, Chapter 30, Subchapter 5 - Mixing Zones in Surface and Ground Water**.** November 2004.

ARM Title 17, Chapter 30, Subchapter 6 - Surface Water Quality Standards. March 31, 2006.

ARM Title 17, Chapter 30, Subchapter 7 - Nondegradation of Water Quality. June 30, 2004.

ARM Title 17, Chapter 30, Subchapter 13 - Montana Pollutant Discharge Elimination System (MPDES) Standards. March 31, 2003.

40 CFR, Parts 122, 133, 136, July 1, 2004.

DEQ. Circular WQB-7, Montana Numeric Water Quality Standards. February 2006.

DEQ. Montana List of Water bodies in Need of Total Maximum Daily Load Development. 1996.

DEQ. Montana 303(d) List. A Compilation of Impaired and Threatened Water bodies in Need of Water Quality Restoration. Part A. Water Quality Assessment Results. November 24, 2006.

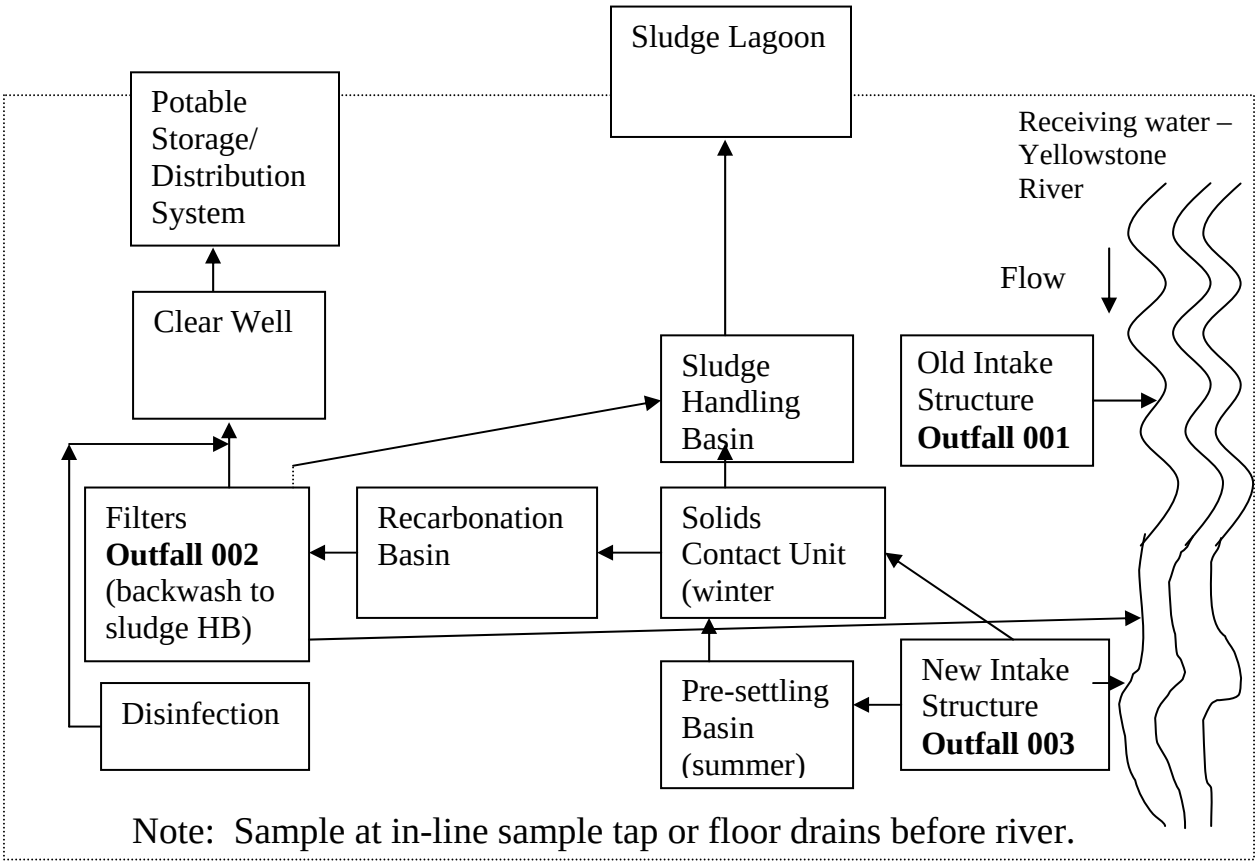
DEQ. Montana Water Quality Act. Title 75-5-101 *et seq*., MCA 2007. March 2008 printing.

EPA. Office of Water, U.S. EPA NPDES Permit Writers' Manual, EPA-833-B-96-003. December 1996.

EPA. Technical Support Document for Water Quality based Toxics Control EPA/505/2-90-001.March 1991.

Prepared by: John Wadhams
Date: November 2007/April 2008

Figure 1


Sludge Lagoon
Potable Storage/ Distribution System
Receiving water – Yellowstone River
Flow
Clear Well
Sludge Handling Basin
Old Intake Structure **Outfall 001**
Filters **Outfall 002** (backwash to sludge HB)
Recarbonation Basin
Solids Contact Unit (winter
Disinfection
Pre-settling Basin (summer)
New Intake Structure **Outfall 003**
Note: Sample at in-line sample tap or floor drains before river.